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IN THE CLAIMS:

Please cancel claims 9 and 18-20 without prejudice or disclaimer as to the subject matter thereof.

- 1. (currently amended) A system for continuously sensing mechanical activity of a heart and adjusting a cardiac resynchronization pacing therapy based on the sensed mechanical activity, comprising:
 - a processor-based electronic cardiac pacing engine; and
- a single tensiometric mechanical sensor adapted to simultaneously detect cardiac contractions of at least a left atrial chamber, a left ventricular chamber, and a right ventricular chamber, and said tensiometric sensor adapted to provide an output signal corresponding to said detected cardiac contractions to the processor-based electronic cardiac pacing engine to controllably produce synchronous contractions of the left ventricular chamber and the right ventricular chamber.
- 2. (currently amended) A system according to claim 1, wherein said single mechanical sensor is adapted to be coupled to at least one of the following:
 - a portion of a coronary sinus ostium,
 - a portion of a coronary sinus.
 - a portion of a cardiac vein.
- 3. (currently amended) A system according to claim 1, further comprising an additional mechanical sensor adapted to mechanically couple to a discrete portion of the right ventricular chamber and wherein said additional mechanical sensor provide a signal to the processor-based electronic cardiac pacing engine.
- 4. (currently amended) A system according to claim 1, wherein the single mechanical comprises one of a tensiometric-type sensor comprises one of a strip of piezoelectric material and a variable resistivity material, and wherein

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said tensiometric sensor couples to a distal portion of a cardiac pacing leadan accelerometer sensor.

- 5. (currently amended) A system according to claim 4, wherein said cardiac pacing lead includes at least one high voltage coil-type electrodeaccelerometer sensor comprises one of a single axis accelerometer and a multiple axis accelerometer.
- 6. (currently amended) A system according to claim 4, wherein the tensiometric-type sensor further comprises a transvenous delivery mechanism coupled to said tensiometric-type sensor.
- 7. (currently amended) A system according to claim 6, wherein said transvenous delivery mechanism comprises one of: a stylet, a single lumen delivery catheter, and a guidewire.
- 8. (currently amended) A system according to claim 3, wherein the additional mechanical sensor comprises one of a tensiometric-type-sensor and an accelerometer sensor.
- 9. (canceled)
- 10. (currently amended) A system according to claim 8, wherein the tensiometric-type sensor further comprises-comprising a transvenous delivery mechanism coupled to said accelerometer tension-metric sensor.
- 11. (original) A system according to claim 10, wherein said transvenous delivery mechanism comprises one of: a stylet, a single lumen delivery catheter, a quidewire.

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- 12. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an implantable pulse generator.
- 13. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an implantable cardioverterdefibrillator.
- 14. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine further comprises a programmable medium for executing computer readable instructions.
- 15. (currently amended) A system according to claim 14, wherein the computer readable-programmable medium includes instructions for delivering one of: a bradycardia pacing modality, a tachycardia pacing modality, a cardiac resynchronization therapy modality, a single-chamber pacing modality.
- 16. (currently amended) A system according to claim 14, wherein the computer readable-programmable medium includes instructions for delivering a cardiac resynchronization therapy modality.
- 17. (original) A system according to claim 1, wherein the processor-based electronic cardiac pacing engine comprises an external pulse generator.
- 18.-20. (canceled)